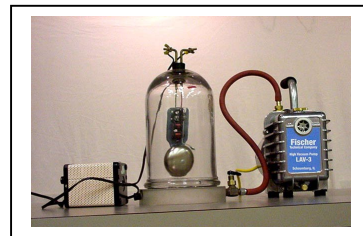


Activity #3—Student Response Sheet

Title: Transmission of Longitudinal (sound) Waves



1. I predict that the _____ phase of matter will conduct sound the poorest. The _____ phase of matter will be second best and the _____ phase of matter will conduct sound the best. (Choose answers from **solid**, **liquid** or **gas**.)
2. 2a. I _____ (**was**, **was not**) able to hear the ticking of the watch from one meter away.

2b. When the watch was placed on one end of the metal rod, the sound of its ticking was _____
_____.

3a. The sound made by the suspended coat hanger was _____
_____.

3b. The sound of the vibrating coat hanger was carried to my ears by the _____ phase of matter.

3c. The sound of the coat hanger when my fingers were inserted into the loops of the string and then allowed to touch my ears was _____
_____.

3d. The _____ phase of matter was carrying this sound to my ears.

4a. Examples of sounds that were carried to my ears by liquids or solids are _____

_____.

4b. My REVISED prediction for the ranking of the phases of matter to conduct sound energy is the _____ phase is poorest, _____ is second and the _____ phase is the best.

5. I predict that the volume of the sound source inside of the bell jar will _____ (**increase**, **decrease**, **remain the same**) when the air within is removed.

6a. I predict that the volume of the sound source will _____ as the air is allowed to re-enter the bell jar.

6b. Communication in the vacuum of outer space must be accomplished by _____

_____.